

Notice of Allowability

Application No.

09/937,550

Examiner

Bernard Lipman

Applicant(s)

PASCAULT ET AL.

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Advisory of 28 October 2004.
2. ☒ The allowed claim(s) is/are 1 and 15-21.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

EXAMINER'S AMENDMENT

1. An extension of time under 37 CFR 1.136(a) is required in order to make an examiner's amendment which places this application in condition for allowance. During a telephone conversation conducted on 29 November 2004, Alan E Wagner, Esq. requested an extension of time for 2 MONTH(S) and authorized the Director to charge Deposit Account No. 23-2053 the required fee of \$430 for this extension and authorized the following examiner's amendment. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows: The claims are amended to read as follows:

Claims

1. A thermosetting composition comprising crosslinked polymer microparticles with a size of between 10 and 200 nm, wherein the microparticles are at least partially soluble, miscible and/or dispersible in the starting thermosetting composition and carry at least one first reactive functional group which can react with at least one reactive functional group carried by at least one reactive component of the thermosetting composition
wherein the microparticles carry at least one functional group which reacts by a polycondensation reaction and at least one second functional group which is an α,β -ethylenic unsaturation which can polymerize by the radical route or by a specific Michael reaction and wherein the thermosetting composition comprises:

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- a) at least one unsaturated polyester and/or at least one unsaturated polyester modified by a poly-isocyanate and/or at least one vinyl ester,
- b) at least one copolymerizable comonomer carrying at least one α,β -ethylenic unsaturation chosen from vinylaromatic and/or (meth)acrylic and/or allyl monomers,
- c) optionally at least one second monomer carrying at least two reactive functional groups, one of which can polymerize by the radical route and the other by a condensation reaction,
- d) 0.5-50% by weight of the said reactive crosslinked microparticles

2-14. Cancelled.

15. The composition as claimed in Claim 1, wherein said microparticles carry at least one (meth)acrylate or hydrogen maleate functional group.

16. The composition as claimed in Claim 1, wherein said microparticles can be obtained by a first polymerization stage starting from:

- i) 10-40 mol% of Cardura E10 (meth)acrylate,
- ii) 10-75 mol% of butyl and/or tert-butyl and/or 2-ethylhexyl and/or 2-(2-ethoxyethoxy)ethyl (meth)acrylate and of styrene, with a molar ratio of styrene to (meth)acrylic monomers varying from 0 to 0.2,
- iii) 5-40 mol% of hydroxyethyl (meth)acrylate, maleic anhydride, (meth)acrylic acid or glycidyl methacrylate,
- iv) 2-10 mol% of hexanediol and/or propylene glycol and/or neopentyl glycol and/or trimethylolpropane (meth)acrylate,

with the sum of the molar percentages of all these constituents i)+ii)+iii)+iv) being equal to 100, followed by a second stage of at least partial chemical modification of the starting reactive functional groups according to:

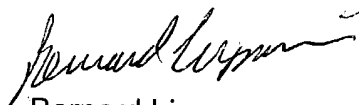
- the starting hydroxyl functional groups to hydrogen maleates by reaction with maleic anhydride and/or to (meth)acrylates by reaction with (meth)acrylic acid,
- the starting epoxy functional groups to (meth)acrylates by reaction with (meth)acrylic acid,

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- the acid functional groups to methacrylate by reaction with glycidyl methacrylate,
 - the anhydride functional groups to (meth)acrylates and residual acids by reaction with a hydroxyethyl or hydroxypropyl (meth) acrylate or with glycidyl methacrylate.
17. A coating comprising the composition of Claim 1.
18. The coating of Claim 17, wherein said coatings are protective coatings for electrical or electronic components, items or devices.
19. The thermosetting composition of Claim 1 applied to molded items and of items made of composite materials.
20. A thermoset matrix obtained from the thermosetting composition of Claim 1.
21. A protective coating, molded item or item made of composite materials obtained from the thermosetting composition of Claim 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernard Lipman whose telephone number is 571-272-1105. The examiner can normally be reached on 8-5 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Bernard Lipman
Primary Examiner
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BL/hs
12/01/2004